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Roman Bezrukavnikov* (bezrukav@math.mit.edu), Office 2-284, MIT, Department of Mathematics, Cambridge, MA 02139, **Ivan Mirkovic**, University of Massachusetts, and **Dmitry Rumynin**, University of Warwick. *Applications of affine braid group action on derived representation categories.*

An action of a braid group on the derived category of a category of representations generated by intertwining functors has been observed and used in several contexts (category \mathcal{O} being perhaps the best known). In particular, a (n integral) block of the category of representations of a reductive Lie algebra \mathfrak{g} in positive characteristic carries an action of the affine braid group attached to the affinization of the Dynkin graph of \mathfrak{g} . This action is central in our approach to study of such representations; as a first application we prove (using our extension of localization theorem to this setting) a generalization to nonrestricted representations of a theorem by Andersen, Jantzen and Soergel about independence of p (for almost all p) of Jordan-Hoelder structure of standard modules in characteristic p . This is a joint work with Mirkovic and Rumynin. (Received September 14, 2005)